General

Guideline Title

Prevention of chronic disease. In: Guidelines for preventive activities in general practice, 8th edition.

Bibliographic Source(s)

Prevention of chronic disease. In: Guidelines for preventive activities in general practice, 8th edition. East Melbourne (Australia): Royal Australian College of General Practitioners; 2012. p. 40-9.

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The levels of evidence (I-IV, Practice Point) and grades of recommendations (A-D) are defined at the end of the "Major Recommendations" field.

Smoking

Smoking status and interest in quitting should be assessed for every patient over age 10 years (Zwar et al., 2011; Fiore et al., 2008; van Schayck et al., 2008; Ministry of Health, 2007; Stead et al., 2008). All patients who smoke, regardless of the amount they smoke, should be offered smoking cessation advice. This should include:

- Asking about their interest in quitting (B)
- Advising to stop smoking (A), agreeing on quit goals and offering pharmacotherapy if appropriate (Stead et al., 2008; Cahill, Stead, & Lancaster, 2007) (A)
- Offering referral to a proactive telephone callback cessation service (e.g., the Quitline 13 7848) (Stead, Perera, & Lancaster, 2007) (A)
- Following up to support maintenance and prevent relapse using self-help or pharmacotherapy (Coleman et al., 2010) (A)

To assess nicotine dependence:

- Ask about the time to first cigarette and the number of cigarettes smoked a day. There is a high likelihood of nicotine dependence if the person smokes within 30 minutes of waking and smokes more than 10 to 15 cigarettes a day.
- Explore whether the patient had withdrawal symptoms when they previously attempted to quit.

Smoking: Identifying Risks

Who Is at Risk?	What Should Be Done?	How Often?	References
Average Risk • Everyone over age 10 years	Ask about quantity and frequency of smoking (I,A). Offer smoking cessation advice, set quit goals, offer pharmacotherapy, referral and follow-up as appropriate. (II,A)	Opportunistically* (III,C)	Zwar et al., 2011; Fiore et al., 2008; Ministry of Health, 2007; Baker et al., 2006; Ivers, 2003; Morissette et al., 2007; Ranney et al., 2006
High Risk (people who smoke and who have the following characteristics):			
• Aboriginal and Torres Strait Islander peoples	Offer smoking cessation advice. Agree on quit goals, offer pharmacotherapy and culturally appropriate referral and support. (II,A)	Opportunistically, ideally at every visit* (III,C)	Ivers, 2003
• People with mental illness	Offer smoking cessation advice and make careful use of pharmacotherapy given significant impact of nicotine and nicotine withdrawal on drug metabolism.† (I,A)	Opportunistically, ideally every visit* (III,C)	Zwar et al., 2011; van Schayck et al., 2008; Baker et al., 2006; Morissette et al., 2007; Ranney et al., 2006
• Pregnant women	Offer smoking cessation advice, agree on quit goals, offer referral to a quit program. (I,A)	At each antenatal visit (III,C)	van Schayck et al., 2008; Solberg et al., 2001; Young & Ward, 2001; Litt & Rigby, 2011
• People with other drug-related dependencies	Offer smoking cessation advice and make careful use of pharmacotherapy given significant impact of nicotine and nicotine withdrawal on drug metabolism.† (I,A)	Opportunistically, ideally every visit* (III,C)	Zwar et al., 2011; Baker et al., 2006; Ranney et al., 2006; Sciamanna et al., 2004; Okoli et al., 2010
• People with smoking-related disease	Offer smoking cessation advice highlighting specific disease-related benefits of quitting; refer to smoking programs. (I,A)	Opportunistically, ideally every visit* (III,C)	Zwar et al., 2011; Ministry of Health, 2007; Ranney et al., 2006; Solberg et al., 2001
• Parents of young babies and children	Offer smoking cessation advice. If the parent is unable to quit advise to: • Smoke away from children • Not smoke in confined spaces with children (e.g., when driving). (I,A)	Opportunistically, ideally every visit* (III,C)	Zwar et al., 2011; Australian Institute of Health and Welfare, 2008; Ministry of Health, 2007; Young & Ward, 2001; Litt et al., 2005

*See Effect of smoking abstinence on medications, Appendix 9, New Zealand smoking cessation guidelines 2007 .

†While enquiry about smoking should occur at every opportunity, be aware of patient sensitivity. Non-judgemental enquiry about smoking is associated with greater patient satisfaction (Solberg et al., 2001; Sciamanna et al., 2004; Miller & Rollnick, 2009).

Overweight

Body mass index (BMI) and waist circumference should be measured every 2 years (A). BMI on its own may be misleading, especially in older people and muscular individuals, and classifications may need to be adjusted for some ethnic groups (National Health and Medical Research Council [NHMRC], "Clinical practice guidelines," 2003). Waist circumference is a strong predictor of health problems (Pouliot et al., 1994;

Welborn, Dhaliwal, & Bennett, 2003).

Patients who are overweight or obese should be offered individual lifestyle education (Goldstein, Witlock, & DePue, 2004; NHMRC, "Overweight," 2003; National Heart Foundation of Australia, 2007) (A). Restrictive dieting is not recommended for children and adolescents. A modest loss of 5% of starting body weight in adults who are overweight is sufficient to achieve some health benefits (National Heart Foundation of Australia, 2007; Witham & Avenell, 2010; Groeneveld et al., 2010; Uusitupa et al., 2009).

Obesity-related Complications: Identifying Risks

Who Is at Risk?	What Should Be Done?	How Often?	References
Average Risk • All patients	Assess body mass index (BMI) and waist circumference in all adults aged over 18 years. (I,A) In children and adolescents use age-specific BMI charts (see the NGC summary of the Royal Australian College of General Practitioners [RACGP] guideline Preventive activities in children and young people). (III,C) Offer education on nutrition* and physical activity.† (I,A)	Every 2 years (IV,D)	NHMRC, "Overweight," 2003; Witham & Avenell, 2010
Increased Risk • Aboriginal and Torres Strait Islander peoples and those from Pacific Islands • Patients with existing diabetes or CVD, stroke, gout or liver disease	Assess BMI and waist circumference in all adults over age 18 years. (I,B)	Every 12 months (IV,D)	National Aboriginal Community Controlled Health Organisation, 2005; NHMRC, "Overweight," 2003
	Offer individual or group-based education on nutrition and physical activity. (II,A)		Witham & Avenell, 2010; Pollard et al., 2003
Identified Risk • Patients who are overweight or obese	Assess weight and waist circumference. (I,B)	Every 6 months§ (III,C)	NHMRC, "Overweight," 2003
	Develop weight management plan.‡ (II,B)		Wadden et al., 2011; Jebb et al., 2011
	Consider referral for self-management support or coaching in an individual or group-based diet or physical activity program or allied health provider (e.g., dietitian, exercise physiologist, psychologist).		

*For more information see the NHMRC Dietary guidelines for Australian adults.

†For more information see the NHMRC Physical activity guidelines.

‡See Obesity management guidelines: the plan should include frequent contact (not necessarily in general practice), realistic targets, and monitoring for at least 12 months.

§Review impact on changes in behaviour in 2 weeks.

Overweight and Obesity: Assessment and Preventive Interventions

Assessment	Technique	References

Assessment	Technique	References
Body mass index (BMI)	BMI = body weight in kilograms divided by the square of height in metres. BMI of 25 or greater conveys increased risk.	NHMRC, "Overweight," 2003; World Health Organization (WHO) Consultation on Obesity, 2000
Waist circumference	An adult's waist circumference is measured halfway between the inferior margin of the last rib and the crest of the ilium in the mid-axillary plane over bare skin. The measurement is taken at the end of normal expiration. • ≥94 cm in males and ≥80 cm in females conveys increased risk • ≥102 cm in males and ≥88 cm in females conveys high risk	NHMRC, "Overweight," 2003; WHO Consultation on Obesity, 2000
Weight reduction	1. Advise that weight loss can have health benefits, including reduced blood pressure (BP) and prevention of diabetes in high-risk patients.	
	2. Start a lifestyle program that includes reduced caloric intake (aiming for 600 Kcal or 2,500 KJ energy deficit) and increased physical activity (increasing to 60 minutes of moderate-intensity 5 days per week) supported by behavioural counseling.	Seo & Sa, 2008; Shaw et al., 2006
	3. Agree on goals, including a realistic initial target of 5% weight loss. Make contact (visits, phone, etc.) 2 weeks after commencing the program to determine adherence and if goals are being met.	Horvath et al., 2008; Neovius, Johansson, & Rossner, 2008
	4. If no response (<1 kg weight or 1 cm waist) after 3 months, consider alternative approaches, including the addition of medication such as Orlistat.	Diabetes Prevention Program Research Group et al., 2009
	5. After achieving initial weight loss, advise that patients may regain weight after 2 years without a maintenance program that includes support, monitoring and relapse prevention.	Padwal et al., 2011; Picot et al., 2009; Scottish Intercollegiate Guidelines Network, 2010; Dixon et al., 2011; Zimmet & Dixon, 2011
	Bariatric surgery may be considered in patients who fail lifestyle interventions and who have a BMI of 35+ with comorbidities, such as poorly controlled diabetes, who are expected to improve with weight reduction.	

Refer to the original guideline document for more information regarding obesity and risk of cardiovascular disease (CVD) and type 2 diabetes in Australian adults.

Nutrition

Ask adults how many portions of fruits or vegetables are eaten in a day and advise to follow the *Dietary guidelines for Australian adults* (NHMRC, "Food for health," 2003) (B). Brief lifestyle advice should be given to reduce saturated fat and sodium and increase fruit and vegetable portions (2 + 5 portions) as these are associated with a lower risk of CVD and diabetes (Pignone et al., 2003).

Breastfeeding should be promoted as the most appropriate method for feeding infants and one that offers protection against infection and some chronic diseases (NHMRC, "A guide," 2003). See the NGC summary of the RACGP guideline Preventive activities in children and young people for nutrition-related recommendations.

Nutrition-Related Complications: Identifying Risk

Who Is at Risk?	What Should Be Done?	How Often?	References
Average Risk • All patients	Ask about number of portions of fruits and vegetables eaten per day, amount of sodium, and amount of saturated fat eaten. (II,B) All patients should be advised to follow the NHMRC *Dietary guidelines for Australian adults* and the Heart Foundation guidelines (see the Table: Nutrition-related Complications: Preventive Interventions below).	Every 2 years (IV,D)	Steptoe et al., 2003; Ammerman et al., 2002; Hooper et al., 2012
High Risk • Overweight or obese • High cardiovascular absolute risk (>15%) • A past or first-degree family history of cardiovascular disease (CVD) (including stroke) before age 60 years. For personal history the age doesn't matter. • Type 2 diabetes or high risk for diabetes	Provide lifestyle advice to reduce dietary saturated fat, sodium and increase fruit and vegetables. (See the "Overweight" section above for dietary recommendations for overweight and obesity.) (II,B) Provide self-help nutrition education materials and refer to a dietitian or group diet program. (II,B)	Every 6 months (III,C)	Hooper et al., 2012; US Preventive Services Task Force, 2003; Brunner et al., 2007; Thompson et al., 2007

Nutrition-Related Complications: Preventive Interventions

Intervention	Technique	References
Vitamin supplements	Vitamin supplementation is not of established value in asymptomatic individuals* (with the exception of folate and iodine in pregnancy). Routine screening for vitamin D deficiency is not recommended in low-risk populations.	World Cancer Research Fund, 2007
Dietary recommendations	Enjoy a wide variety of foods each day: • Five portions of vegetables and 2 portions of fruit (He, Nowson, & MacGregor, 2006; He et al., 2007) • Three portions of cereals (including breads, rice, pasta and noodles) • One to two portions of lean meat, fish, poultry and/or alternatives • At least 2 g per day alpha-linolenic acid by including foods such as canola-based or soybean-based oils and margarine spreads, seeds (especially linseeds), nuts (particularly walnuts), legumes (including soybeans), eggs and green leafy vegetables • Drink plenty of water Take care to: • Limit saturated fat and moderate total fat intake (Hooper et al., 2012) but consume about 500 mg per day of combined docosahexaenoic acid and eicosapentaenoic acid through a combination of the following (National Heart Foundation of Australia, 2008): two or three serves (150 g serve) of oily fish per week, fish oil capsules or liquid, food and drinks enriched with marine omega-3 polyunsaturated fatty acids (He et al., 2004) • Limit salt intake (Hooper et al., 2004) to less than 6 g of salt a day (approximately 2300 mg of sodium a day), which is approximately 1½ teaspoons of salt • Limit alcohol intake	NHMRC, "Food for health," 2003

Intervention	Technique	References
	• Consume only moderate amounts of sugars and foods containing added sugars • Prevent weight gain: be physically active and eat according to energy needs • Care for food: prepare and store it safely • Encourage and support breastfeeding Note: There are also dietary guidelines for children and adolescents: *Dietary guidelines for children and adolescents in Australia, incorporating the infant feeding guidelines for health workers* (NHMRC, "Incorporating," 2003). For specific advice, especially patients with specific conditions, refer to a dietitian. See the Heart Foundation Web site for a number of nutrition position statements.	
Encourage breastfeeding	Encourage and support exclusive breastfeeding for 4 to 6 months, then the introduction of complementary foods and continued breastfeeding thereafter. It is recommended that breastfeeding continue until age 12 months and thereafter as long as mutually desired.	NHMRC, "Food for health," 2003

*Prevalence of nutritional deficiency is high in certain groups such as people with alcohol dependence and elderly living alone or in institutions.

Early Detection of Problem Drinking

All patients should be asked about the quantity and frequency of alcohol intake from age 15 years (A). Those with at-risk patterns of alcohol consumption should be offered brief advice to reduce their intake (Kaner et al., 2009) (A). Provide interventions using brief motivational interviewing targeted at high-risk use (Smedslund et al., 2011; Apodaca & Longabaugh, 2009; Lundahl & Burke, 2009) (I,B).

The lifetime risk of harm from drinking alcohol increases with the amount consumed. For healthy men and women, drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury. Short-term risks stem from the risks of accidents and injuries occurring immediately after drinking.

Alcohol-related Complications: Identifying Risk

Who Is at Risk?	What Should Be Done?	How Often?	References
Low Risk • All patients aged 15 years and over	Ask about the quantity and frequency of alcohol intake. (II,B) Advise if drinking alcohol to drink 2 drinks per day or less and no more than 4 drinks on any one occasion. (II,B)	Every 2–4 years (III,C)	NHMRC, 2009
Increased Risk • Children and adolescents	Advise children aged under 15 years not to drink. (III,B) Advise young people aged 15–17 years to delay drinking as long as possible. (III,B)	Opportunistically (III,C)	NHMRC, 2009
• Older people*	Inform that there is an increased risk of potential harm from drinking. (III,B)	Opportunistically (III,C)	Pluijm et al., 2006; Fletcher & Hirdes, 2005; Aira, Hartikainen, & Sulkava, 2005
• Young adults, who have a higher risk of accidents and injuries			Foxcroft et al., 2003

Who Is at Risk?	What Should Be Done?	How Often?	References
• People with a family history of alcohol dependence			Whitlock et al., 2004; Ballesteros et al., "Brief interventions," 2004; Ballesteros et al., "Efficacy," 2004
• Individuals who are participating or supervising risky activities (e.g., driving, boating, extreme sports, diving, using illicit drugs)	Advise that non-drinking is the safest option: driving (I,A), other areas. (III,C)	Opportunistically (III,C)	Fell & Voas, 2006; Taylor et al., 2010 (Driving) Lunetta et al., 2004; Driscoll, Harrison, & Steenkamp, 2004; Kaye & Darke, 2004; O'Kane, Tutt, & Bauer, 2002
• Woman who are pregnant or planning a pregnancy	Advise that non-drinking is the safest option. (I,A)	Opportunistically or at each antenatal visit (III,C)	NHMRC, 2009; Rehm et al., 2010; Odendaal et al., 2009

• People with a physical condition made worse by alcohol:
  • Pancreatitis
  • Diabetes
  • Hepatitis/chronic liver disease
  • Peptic ulcer
  • Hypertension
  • Sleep disorders
  • Sexual dysfunction
  • Other major organ disease
	Advise that non-drinking is the safest option but weigh up pros and cons for each individual. (I,A)
	
	Advise those with hypertension, or taking antihypertensive medication, to limit alcohol intake to no more than 2 (for men) or 1 (for women) standard drinks per day. (II,B)
		Opportunistically (III,C)	NHMRC, 2009; Rajendram, Lewison, & Preedy, 2006

• People with a mental health problem made worse by alcohol (e.g., anxiety and depression)	Assess whether there are possible harmful interactions between their medications and alcohol. (II,A)	Opportunistically (III,C)	Sullivan, Fiellin, & O'Connor, 2005; Morris, Stewart, & Ham, 2005; Abrams et al., 2001
• People taking medications			Moore, Whiteman, & Ward, 2007; Weathermon & Crabb, 1999

*Older people who have a higher risk of falls and are more likely to be taking medication (Aira, Hartikainen, & Sulkava, 2005).

Refer to original guideline document for more information regarding preventive interventions for alcohol-related complications.

Physical Activity

All adults should be advised to participate in 30 minutes of moderate activity on most, preferably all, days of the week (at least 2.5 hours per week) (Woodcock et al., 2011) (A) and to avoid prolonged sitting, which is a cardiovascular risk factor (Katzmarzyk et al., 2009). While moderate physical activity is recommended for health benefit, more vigorous exercise may confer additional cardiovascular health and cancer

prevention benefits if carried out for a minimum of 30 minutes 3 to 4 times a week (Lollgen, Bockenhoff, & Knapp, 2009). The amount of physical activity can be accumulated over several bouts. The amount of activity for weight loss is greater. It is recommended that at least 60 minutes of moderate-intensity physical activity (such as brisk walking) every day may be required, in addition to reducing energy intake, in order to achieve measurable weight loss over a number of months and prevent weight regain (National Physical Activity Program Committee, 2007). Even without weight loss, physical activity can accrue health benefits (Shaw et al., 2006).

Physical Inactivity: Identifying Risk

Who Is at Risk?	What Should Be Done?	How Often?	References
Average Risk • Those already performing moderate levels of activity for 30 minutes daily on at least 5 days of the week.	Question regarding current level of activity. (II,A)	Every 2 years (III,C)	Department of Health and Ageing, 1999
	Consider use of pedometer to assess step count per day. (III,C)		Bravata et al., 2007
Increased Risk • Those not performing moderate levels of activity for 30 minutes daily on at least 5 days of the week. • Others at higher risk include teenage girls, office workers, Aboriginal or Torres Strait Islander peoples, and people from low socioeconomic backgrounds and non-English speaking backgrounds. • Those with a chronic condition or other cardiovascular disease (CVD) risk factors (see the NGC summary of the RACGP guideline Prevention of vascular and metabolic disease). • Patients at high risk of CVD or diabetes (including impaired glucose tolerance).	Question regarding current level of activity and readiness to be more active. (III,C) Provide brief advice and written physical activity materials. (III,C) Refer to an exercise or physical activity program: programs with additional behaviour change support may be more beneficial. (III,C)	Every visit (IV,D)	Bauman et al., 2002

Physical Inactivity: Assessment and Intervention

Assessment and Intervention	Technique	References
Determine level of physical activity	• Moderate physical activity is associated with a moderate, noticeable increase in the depth and rate of breathing while still being able to whistle or talk comfortably.	Briffa et al., 2006
	• Question regarding current level of activity and readiness to be more active.	RACGP, 2004
	• Consider use of pedometer to assess current number of steps per day over 1 week; 10,000 steps per day is regarded as sufficient although health benefits also accrue at lower levels.	Winzenberg & Shaw, 2011
Brief interventions to increase	Interventions in general practice that have been shown to have short-term benefit in changing behaviour related to physical activity include:	RACGP, 2004

levels of physical activity	Technique	References
Assessment and intervention	• Patient screening to identify current level of activity (including use of a pedometer) and readiness to be more active	Bravata et al., 2007
	• Provision of brief advice or counselling on exercise • Supporting written materials and/or written prescription for exercise (e.g., Physical Activity Lifescript) • Pedometer step target of 10,000 steps per day, or 2000 more than at baseline	
Physical activity program	• Structured programs of physical activity education and exercise may be delivered as individual or group program and over several sessions. The Heart Foundation is at http://heartmoves.heartfoundation.org.au and some local councils have information on local physical activity programs. Exercise physiologists are listed at www.essa.org.au .	

Definitions:

Levels of Evidence

Level	Explanation
I	Evidence obtained from a systematic review of level II studies
II	Evidence obtained from a randomised controlled trial (RCT)
III–1	Evidence obtained from a pseudo-randomised controlled trial (i.e., alternate allocation or some other method)
III–2	Evidence obtained from a comparative study with concurrent controls: • Non-randomised, experimental trial • Cohort study • Case–control study • Interrupted time series with a control group
III–3	Evidence obtained from a comparative study without concurrent controls: • Historical control study • Two or more single arm study • Interrupted time series without a parallel control group
IV	Case series with either post-test or pre-test/post-test outcomes
Practice Point	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees

Grades of Recommendations

Grade	Explanation
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Chronic diseases (e.g., chronic respiratory diseases, cardiovascular disease, diabetes, some cancers)
- Smoking-related diseases and nicotine dependence
- Overweight and obesity
- Nutrition-related complications
- Problem drinking and alcohol-related complications
- Physical inactivity

Guideline Category

Counseling

Evaluation

Management

Prevention

Risk Assessment

Screening

Treatment

Clinical Specialty

Family Practice

Internal Medicine

Nutrition

Obstetrics and Gynecology

Pediatrics

Preventive Medicine

Intended Users

Advanced Practice Nurses

Health Care Providers

Nurses

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Social Workers

Guideline Objective(s)

- To facilitate evidence-based preventive activities for prevention of chronic disease in primary care
- To provide a comprehensive and concise set of recommendations for patients in general practice with additional information about tailoring risk and need
- To provide the evidence base for which primary healthcare resources can be used efficiently and effectively while providing a rational basis to ensure the best use of time and resources in general practice

Target Population

General population living in Australia, including the Aboriginal and Torres Strait Islander population

- Smoking: individuals ≥10 years
- Overweight, nutrition, physical activity: all individuals
- Early detection of problem drinking: individuals ≥15 years

Interventions and Practices Considered

1. Smoking
    - Asking about quantity and frequency of smoking
    - Offering smoking cessation advice
    - Setting quit goals
    - Offering pharmacotherapy, referral and follow-up as appropriate
2. Overweight and obesity
    - Assessment of body mass index (BMI)
    - Education on nutrition and physical activity
    - Developing a weight management plan
    - Referral for self-management support or coaching in an individual or group-based diet or physical activity program or allied health provider (e.g., dietitian, exercise physiologist, psychologist)
    - Medications such as Orlistat
    - Bariatric surgery
3. Nutrition
    - Asking about number of portions of fruits and vegetables eaten per day, amount of sodium, and amount of saturated fat eaten
    - Advice to follow the *Dietary guidelines for Australian adults* and the Heart Foundation guidelines
    - Lifestyle advice to reduce dietary saturated fat and sodium and increase fruit and vegetables
    - Self-help nutrition education materials and referral to a dietitian or group diet program
    - Encouraging breastfeeding
    - Vitamin supplements (not recommended in asymptomatic individuals)
4. Alcohol and problem drinking
    - Asking about the quantity and frequency of alcohol intake
    - Advice to drink two drinks per day or less and no more than four drinks on any one occasion
    - Advising children under age 15 years not to drink and young people 15 to 17 to delay drinking
    - Advice on harms of drinking and that not drinking is the safest option
    - Assessment for possible interactions between alcohol and medications
    - Brief interventions for problem drinkers
5. Physical activity
    - Questioning individuals regarding current activity level
    - Considering use of pedometer
    - Providing advice and written physical activity materials

- Referral to an exercise or physical activity program

Major Outcomes Considered

- Effectiveness of interventions by general practitioners (GPs) and practice nurses on a patient's lifestyle practices, including smoking, hazardous drinking, physical activity, and dietary change
- Risks of and rates of smoking, problem drinking, overweight/obesity/poor nutrition, and physical inactivity
- Risk of cardiovascular disease and diabetes

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Sources of Recommendations

The recommendations in these guidelines are based on current, evidence-based guidelines for preventive activities. The Taskforce focused on those most relevant to Australian general practice. Usually this means that the recommendations are based on Australian guidelines such as those endorsed by the National Health and Medical Research Council (NHMRC).

In cases where these are not available or recent, other Australian sources have been used, such as guidelines from the Heart Foundation, Canadian or United States preventive guidelines, or the results of systematic reviews. References to support these recommendations are listed. However, particular references may relate to only part of the recommendation (e.g., only relating to one of the high-risk groups listed) and other references in the section may have been considered in formulating the overall recommendation.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence

Level	Explanation
I	Evidence obtained from a systematic review of level II studies
II	Evidence obtained from a randomised controlled trial (RCT)
III–1	Evidence obtained from a pseudo-randomised controlled trial (i.e., alternate allocation or some other method)
III–2	Evidence obtained from a comparative study with concurrent controls:

Level	Explanation
	• Non-randomised, experimental trial • Cohort study • Case–control study • Interrupted time series with a control group
III–3	Evidence obtained from a comparative study without concurrent controls: • Historical control study • Two or more single arm study • Interrupted time series without a parallel control group
IV	Case series with either post-test or pre-test/post-test outcomes
Practice Point	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

These *Guidelines for preventive activities in general practice*, 8th edition, have been developed by a taskforce of general practitioners (GPs) and experts to ensure that the content is the most valuable and useful for GPs and their teams. The guidelines provide an easy, practical and succinct resource. The content broadly conforms to the highest evidence-based standards according to the principles underlying the Appraisal of Guidelines Research and Evaluation.

The dimensions addressed are:

- Scope and purpose
- Clarity of presentation
- Rigour of development
- Stakeholder involvement
- Applicability
- Editorial independence

The Red Book maintains developmental rigour, editorial independence, relevance and applicability to general practice.

Screening Principles

The World Health Organization (WHO) has produced guidelines for the effectiveness of screening programs. The Taskforce has kept these and the United Kingdom National Health Services' guidelines in mind in the development of recommendations about screening and preventive care.

Rating Scheme for the Strength of the Recommendations

Grades of Recommendations

Grade	Explanation
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

Not stated

Evidence Supporting the Recommendations

References Supporting the Recommendations

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Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for selected recommendations (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Reduced incidence and complications of chronic diseases, such as diabetes, cardiovascular disease, chronic respiratory disease, and some cancers by addressing SNAP (smoking, nutrition, alcohol, physical activity) risk factors

Subgroups Most Likely to Benefit

Disadvantaged people (low incomes and/or education) have higher rates of smoking and alcohol use, poorer diets and lower levels of physical activity. These higher rates are a product of social, environmental factors and individual factors, which interact. Individual behavioural counselling is most likely to be effective for patients from disadvantaged backgrounds if linked to community resources and if financial and access barriers are addressed.

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

- The information set out in this publication is current at the date of first publication and is intended for use as a guide of a general nature only and may or may not be relevant to particular patients or circumstances. Nor is this publication exhaustive of the subject matter. Persons implementing any recommendations contained in this publication must exercise their own independent skill or judgement or seek appropriate professional advice relevant to their own particular circumstances when so doing. Compliance with any recommendations cannot of itself guarantee discharge of the duty of care owed to patients and others coming into contact with the health professional and the premises from which the health professional operates.
- Whilst the text is directed to health professionals possessing appropriate qualifications and skills in ascertaining and discharging their professional (including legal) duties, it is not to be regarded as clinical advice and, in particular, is no substitute for a full examination and

consideration of medical history in reaching a diagnosis and treatment based on accepted clinical practices.

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- These guidelines have not included detailed information on the management of risk factors or early disease (e.g., what medications to use in treating hypertension). Similarly, they have not made recommendations about tertiary prevention (preventing complications in those with established disease). Also, information about prevention of infectious diseases has been limited largely to immunisation and some sexually transmitted infections (STIs).

Implementation of the Guideline

Description of Implementation Strategy

For preventive care to be most effective, it needs to be planned, implemented and evaluated. Planning and engaging in preventive health is increasingly expected by patients. The Royal Australian College of General Practitioners (RACGP) thus provides the Red Book and *National guide to inform evidence-based guidelines*, and the Green Book (see the "Availability of Companion Documents" field) to assist in development of programs of implementation. The RACGP is planning to introduce a small set of voluntary clinical indicators to enable practices to monitor their preventive activities.

Implementation Tools

Chart Documentation/Checklists/Forms

Quick Reference Guides/Physician Guides

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Prevention of chronic disease. In: Guidelines for preventive activities in general practice, 8th edition. East Melbourne (Australia): Royal

Australian College of General Practitioners; 2012. p. 40-9.

Adaptation

This guideline has been partially adapted from Australian, Canadian, United Kingdom, and/or United States preventive guidelines.

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Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the Royal Australian College of General Practitioners (RACGP) Web site .

Availability of Companion Documents

The following are available:

- Preventive activities over the lifecycle – adults. Preventive activities over the lifecycle – children. Electronic copies: Available in Portable Document Format (PDF) from the Royal Australian College of General Practitioners (RACGP) Web site .
- Putting prevention into practice (green book). East Melbourne (Australia): Royal Australian College of General Practitioners; 2006. 104 p. Electronic copies: Available in PDF from the RACGP Web site .
- National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people. East Melbourne (Australia): Royal Australian College of General Practitioners; 2012. 100 p. Electronic copies: Available in PDF from the RACGP Web site .
- Supporting smoking cessation: a guide for health professionals. East Melbourne (Australia): Royal Australian College of General Practitioners; 2011. 80 p. Electronic copies: Available in PDF from the RACGP Web site .

In addition, the appendices of the original guideline document provide the AUDIT-C assessment tool, the Australian Type 2 Diabetes Risk Assessment (AUSDRISK) assessment tool, and the Australian cardiovascular risk charts.

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on May 31, 2013.

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